Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Presented) A system for deciding a bid item for which a bid is made, comprising:

a data memory for storing a logical formula representing a relationship among a plurality of bid items, a value table containing a value of each of the bid items, price information of each of the bid items in at least one market, a total purchasing fund, and a bidding strategy;

a profit computation section for computing a profit obtainable when at least one bid item selected from the plurality of bid items is purchased, based on the value and the price information of the at least one bid item; and

a strategy computation section for determining at least one bid item for which a bid should be made and a gross profit obtainable from the determined at least one bid item, wherein the strategy computation section selects a candidate combination including one of 1) no bid items, 2) one bid item, and 3) two or more bid items from the plurality of bid items based on the logical formula and price information of two or more of the plurality of bid items, and instructs the profit computation section to compute a profit obtainable from the selected candidate combination, said two or more of the plurality of bid items being separate and distinct from one another and not different quantities of the same item, said strategy computation section further establishing the bidding strategy taking into consideration a possible rise of a bidding price of each of the plurality of bid items due to participation of a third party to the bidding in the future.

2. (Original) The system according to claim 1, wherein the logical formula represents a logical OR of the plurality of bid items, wherein the strategy computation section determines a list of bid items so as to maximize a variety of bid items within the plurality of bid items and the possible profit within the total purchasing fund.

3. (Original) The system according to claim 1, wherein the logical formula represents a logical exclusive-OR of the plurality of bid items, wherein the strategy computation section determines a single bid item of the plurality of bid items so as to maximize the possible profit within the total purchasing fund.

4. (Original) The system according to claim 1, wherein

the logical formula represents a logical AND of the plurality of bid items, and

the value table further containing a combinatorial value which will generate only when the plurality of bid items are all purchased,

wherein the strategy computation section determines a list of bid items so as to maximize the possible profit within the total purchasing fund.

5. (Original) The system according to claim 1, wherein the logical formula represents any combination of a logical OR, a logical exclusive-OR, and a logical AND of the plurality of bid items, wherein

the logical OR represents a desire to maximize a variety of bid items within the plurality of bid items and the possible profit within the total purchasing fund,

the logical exclusive-OR represents a desire to determine a single bid item of the plurality of bid items so as to maximize the possible profit within the total purchasing fund, and

the logical AND represents that a combinatorial value will generate only when a plurality of bid items related to the logical AND are all purchased,

wherein the value table further contains the combinatorial value which will generate only when the plurality of bid items related to the logical AND are all purchased.

6. (Cancelled)

7. (Previously Presented) An automated bidding system comprising:

a price collection device for automatically collecting price information of a bid item for which a bid is made in at least one market at regular intervals;

a bid decision system comprising:

a data memory for storing a logical formula representing a relationship among a plurality of bid items, a value table containing a value of each of the bid items, the price information of each of the bid items, a total purchasing fund, and a bidding strategy;

a profit computation section for computing a profit obtainable when at least one bid item selected from the plurality of bid items is purchased, based on the value and the price information of the at least one bid item; and

a strategy computation section for determining at least one bid item for which a bid should be made and a gross profit obtainable from the determined at least one bid item, wherein the strategy computation section selects a candidate combination including one of 1) no bid items, 2) one bid item, and 3) two or more bid items from the plurality of bid items based on the logical formula and price information of two or more of the plurality of bid items, instructs the profit computation section to compute a profit obtainable from the selected combination candidate, and determines the at least one bid item so as to maximize the possible profit within the total purchasing fund, said two or more of the plurality of bid items being separate and distinct from one another and not different quantities of the same item, said strategy computation section further establishing the bidding strategy taking into consideration a possible rise of a bidding price of each of the plurality of bid items due to participation of a third party to the bidding in the future; and

a bidding device performing a bid for the determined at least one bid item.

8. (Previously Presented) A bid supporting system comprising:

a market observation device for automatically collecting price information of a bid item for which a bid is made in at least one market at regular intervals;

a bid decision system comprising:

a data memory for storing a logical formula representing a relationship among a plurality of bid items, a value table containing a value of each of the bid items, the price information of each of the bid items, a total purchasing fund, and a bidding strategy;

a profit computation section for computing a profit obtainable when at least one bid item selected from the plurality of bid items is purchased, based on the value and the price information of the at least one bid item; and

a strategy computation section for determining at least one bid item for which a bid should be made and a gross profit obtainable from the determined at least one bid item, wherein the strategy computation section selects a candidate combination including one of 1) no bid items, 2) one bid item, and 3) two or more bid items from the plurality of bid items based on the logical formula and price information of two or more of the plurality of bid items, and instructs the profit computation section to compute a possible profit obtainable from the selected combination candidate, and determines the at least one bid item so as to maximize the possible profit within the total purchasing fund, said two or more of the plurality of bid items being separate and distinct from one another and not different quantities of the same item, said strategy computation section further establishing the bidding strategy taking into consideration a possible rise of a bidding price of each of the plurality of bid items due to participation of a third party to the bidding in the future; and

a bid recommendation device for representing the determined at least one bid item as recommendable information reflecting price variations in the market.

9. (Previously Presented) The automated bidding system according to claim 7, wherein the logical formula, the value table, and the total purchasing fund are allowed to be updated with a lapse of time.

10. (Previously Presented) The bid supporting system according to claim 8, wherein the logical formula, the value table, and the total purchasing fund are allowed to be updated with a lapse of time.

11. (Previously Presented) The automated bidding system according to claim 7, further comprising a mobile agent, wherein, after the logical formula, the value table, the total purchasing fund, and the bidding strategy have been input, the automated bidding system is transferred from a user's computer to a continuously operating computer to allow periodical market observation.

12. (Previously Presented) The bid supporting system according to claim 8, further comprising a mobile agent, wherein, after the logical formula, the value table, the total purchasing fund, and the bidding strategy have been input, the automated bidding system is transferred from a user's computer to a continuously operating computer to allow periodical market observation.

13. (Previously Presented) In a computer, a method for deciding a bid item for which a bid is made, comprising the steps of:

a) storing in a memory device a logical formula representing a relationship among a plurality of bid items, a value table containing a value of each of the bid items, price information of each of the bid items in at least one market, a total purchasing fund, and a bidding strategy; and

b) determining in said computer at least one bid item for which a bid should be made and a gross profit obtainable from the determined at least one bid item, so as to maximize a possible profit obtainable from a candidate combination including one of 1) no bid items, 2) one bid item, and 3) two or more bid items selected from the plurality of bid items based on the logical formula and price information of two or more of the plurality of bid items within the total purchasing fund, said two or more of the plurality of bid items being separate and distinct from one another and not different quantities of the same item;

wherein the bidding strategy is established taking into consideration a possible rise of a bidding price of each of the plurality of bid items due to participation of a third party to the bidding in the future.

14. (Previously Presented) The method according to claim 13, wherein the logical formula represents a logical OR of the plurality of bid items,

the step (b) comprises the steps of:

b.1) producing a set G of bid items by removing a bid item whose present price exceeds a value thereof from the plurality of bid items;

b.2) determining whether a total of present prices of the bid items in the set G is not greater than the total purchasing fund;

b.3) when the total of present prices of the bid items in the set G is not greater than the total purchasing fund, determining a best combination S of bid items in the set G under the bidding strategy to output a list of bid items in the set G and the possible profit obtained therefrom; and

b.4) when the total of present prices of the bid items in the set G is greater than the total purchasing fund, computing a possible profit obtainable from a combination candidate selected from the set G based on the logical formula within the total purchasing fund to determine a best combination S of bid items in the set G under the bidding strategy to output a list of bid items in the set G and the possible profit obtained therefrom.

15. (Previously Presented) The method according to claim 13, wherein the logical formula represents a logical exclusive-OR of the plurality of bid items,

the step (b) comprises the steps of:

b.1) determining whether one of the plurality of bid items is in bid;

b.2) when an in-bid item exists, outputting the in-bid item and a profit obtained from the in-bid item;

b.3) when no in-bit item exists, computing a profit obtainable from each of bid items included in the logical formula; and

b.4) determining a best bid item based on the profit of each of bid items, the total purchasing fund, and the bidding strategy to output the bid item and the profit obtained therefrom.

16. (Previously Presented) The method according to claim 13, wherein the logical formula represents a logical AND of the plurality of bid items, and the value table further containing a combinatorial value which will generate only when the plurality of bid items are all purchased,

the step (b) comprises the steps of:

b.1) producing a set G which is a sum of a first set including items each having a present price equal to or lower than the value thereof and a second set of bid items each being in bid;

b.2) determining whether a total of present prices of bid items in the set G is not greater than the total purchasing fund;

b.3) when the total of present prices of the bid items in the set G is not greater than the total purchasing fund at the step (b.2), determining whether a total of present prices of bid items included in the logical formula is not greater than the total purchasing fund;

b.4) when the total of present prices of bid items included in the logical formula is not greater than the total purchasing fund at the step (b.3), determining a best combination S of bid items from all the bid items under the bidding strategy to output a list of bid items in the best combination S and the possible profit obtained therefrom;

b.5) when the total of present prices of bid items included in the logical formula is greater than the total purchasing fund at the step (b.3), determining a best combination S of bid items from the set G under the bidding strategy to output a list of bid items in the best combination S and the possible profit obtained therefrom;

b.6) when the total of present prices of the bid items in the set G is greater than the total purchasing fund at the step (b.2), computing a possible profit obtainable from a combination candidate selected from the set G based on the logical formula within the total purchasing fund, taking into consideration the combinatorial value, to determine a best combination S of bid items in the set G under the bidding strategy to output a list of bid items in the set S and the possible profit obtained therefrom.

17. (Previously Presented) The method according to claim 13, wherein the logical formula represents any combination of a logical OR, a logical exclusive-OR, and a logical AND of the plurality of bid items, wherein

the logical OR represents a desire to maximize a variety of bid items within the plurality of bid items and the possible profit within the total purchasing fund,

the logical exclusive-OR represents a desire to determine a single bid item of the plurality of bid items so as to maximize the possible profit within the total purchasing fund, and

the logical AND represents that a combinatorial value will generate only when a plurality of bid items related to the logical AND are all purchased,

the step (b) comprises the steps of:

b.1) producing 2^x possible states, where x is the number of all the items, wherein each of the possible states indicates that a bid item is to be purchased or not to be purchased;

b.2) removing a possible state purchasing both items relating to the exclusive OR from the 2^x possible states to produce a set of possible states; and

b.3) computing a possible profit obtainable from a combination candidate selected from the set G based on the logical formula within the total purchasing fund, taking into consideration the combinatorial value, to determine a best combination S of bid items in the set G under the bidding strategy to output a list of bid items in the set S and the possible profit obtained therefrom.

18. (Cancelled)

19. (Previously Presented) In a computer, an automatic bidding method comprising the steps of:

a) storing in a memory device a logical formula representing a relationship among a plurality of bid items, a value table containing a value of each of the bid items, price information of each of the bid items in at least one market, a total purchasing fund, and a bidding strategy;

b) collecting by the computer price information of the bid items from the market to update the price information stored at regular intervals;

c) determining in the computer at least one bid item for which a bid should be made and a gross profit obtainable from the determined at least one bid item, so as to maximize a possible profit obtainable from a candidate combination including one of 1) no bid items, 2) one bid item, and 3) two or more bid items selected from the plurality of bid items based on the logical formula and price information of two or more of the plurality of bid items within the total purchasing fund, said two or more of the plurality of bid items being separate and distinct from one another and not different quantities of the same item;

d) outputting a list of the determined at least one bid item; and

e) automatically bidding based on the list of the determined at least one bid item;

wherein the bidding strategy is established taking into consideration a possible rise of a bidding price of each of the plurality of bid items due to participation of a third party to the bidding in the future.

20. (Previously Presented) In a computer, a bid supporting method comprising the steps of:

a) storing in a memory device a logical formula representing a relationship among a plurality of bid items, a value table containing a value of each of the bid items, price information of each of the bid items in at least one market, a total purchasing fund, and a bidding strategy;

b) collecting price information of the bid items from the market to update the price information stored at regular intervals;

c) determining by the computer at least one bid item for which a bid should be made and a gross profit obtainable from the determined at least one bid item, so as to maximize a possible profit obtainable from a candidate combination including one of 1) no bid items, 2) one bid item, and 3) two or more bid items selected from the plurality of bid items based on the logical formula and price information of two or more of the plurality of bid items within the total purchasing fund, said two or more of the plurality of bid items being separate and distinct from one another and not different quantities of the same item;

d) outputting a list of the determined at least one bid item; and

e) representing the determined at least one bid item as recommendable information reflecting price variations in the market;

wherein the bidding strategy is established taking into consideration a possible rise of a bidding price of each of the plurality of bid items due to participation of a third party to the bidding in the future.

21. (Previously Presented) The automated bidding method according to claim 19, wherein the logical formula, the value table, and the total purchasing fund are allowed to be updated with a lapse of time.

22. (Previously Presented) The bid supporting method according to claim 20, wherein the logical formula, the value table, and the total purchasing fund are allowed to be updated with a lapse of time.

23. (Previously Presented) The automated bidding method according to claim 19, further comprising a mobile agent, wherein, after the logical formula, the value table, the total purchasing fund, and the bidding strategy have been input, a whole system implementing the automated bidding method is transferred from a user's computer to a continuously operating computer to allow periodical market observation.

24. (Previously Presented) The bid supporting method according to claim 20, further comprising a mobile agent, wherein, after the logical formula, the value table, the total purchasing fund, and the bidding strategy have been input, a whole system implementing the automated bidding method is transferred from a user's computer to a continuously operating computer to allow periodical market observation.

25. (Previously Presented) A computer-readable recording medium storing a computer program for deciding a bid item for which a bid is made, the computer program comprising the steps of:

a) storing a logical formula representing a relationship among a plurality of bid items, a value table containing a value of each of the bid items, price information of each of the bid items in at least one market, a total purchasing fund, and a bidding strategy; and

b) determining at least one bid item for which a bid should be made and a gross profit obtainable from the determined at least one bid item, so as to maximize a possible profit obtainable from a candidate combination including one of 1) no bid items, 2) one bid item, and 3) two or more bid items selected from the plurality of bid items based on the logical formula and price information of two or more of the plurality of bid items within the total purchasing fund, said two or more of the plurality of bid items being separate and distinct from one another and not different quantities of the same item;

wherein the bidding strategy is established taking into consideration a possible rise of a bidding price of each of the plurality of bid items due to participation of a third party to the bidding in the future.

26. (Previously Presented) A computer-readable recording medium storing a computer program for automatic bidding, the computer program comprising the steps of:

a) storing a logical formula representing a relationship among a plurality of bid items, a value table containing a value of each of the bid items, price information of each of the bid items in at least one market, a total purchasing fund, and a bidding strategy;

b) collecting price information of the bid items from the market to update the price information stored at regular intervals;

c) determining at least one bid item for which a bid should be made and a gross profit obtainable from the determined at least one bid item, so as to maximize a possible profit obtainable from a candidate combination including one of 1) no bid items, 2) one bid item, and 3) two or more bid items selected from the plurality of bid items based on the logical formula and price information of two or more of the plurality of bid items within the total purchasing fund, said two or more of the plurality of bid items being separate and distinct from one another and not different quantities of the same item;

d) outputting a list of the determined at least one bid item; and

e) automatically bidding based on the list of the determined at least one bid item;

wherein the bidding strategy is established taking into consideration a possible rise of a bidding price of each of the plurality of bid items due to participation of a third party to the bidding in the future.

27. (Previously Presented) A computer-readable recording medium storing a computer program for a bid supporting method comprising the steps of:

a) storing a logical formula representing a relationship among a plurality of bid items, a value table containing a value of each of the bid items, price information of each of the bid items in at least one market, a total purchasing fund, and a bidding strategy;

b) collecting price information of the bid items from the market to update the price information stored at regular intervals;

c) determining at least one bid item for which a bid should be made and a gross profit obtainable from the determined at least one bid item, so as to maximize a possible profit obtainable from a candidate combination including one of 1) no bid items, 2) one bid item, and 3) two or more bid items selected from the plurality of bid items based on the logical formula and price information of two or more of the plurality of bid items within the total purchasing fund, said two or more of the plurality of bid items being separate and distinct from one another and not different quantities of the same item;

d) outputting a list of the determined at least one bid item; and

e) representing the determined at least one bid item as recommendable information reflecting price variations in the market;

wherein the bidding strategy is established taking into consideration a possible rise of a bidding price of each of the plurality of bid items due to participation of a third party to the bidding in the future.

28. (Previously Presented) In a computer, a method for deciding a bid item for which a bid is made, comprising the steps of:

a) storing in a memory device a logical formula representing a logical OR of two bid items X and Y, a value table containing values xm and ym of respective ones of the bid items X and Y, present prices x and y of respective ones of the bid items X and Y, a total purchasing fund T, and a constant p1 determined by a bidding strategy;

b) determining by the computer whether $y < ym$ (hereafter, called Condition 1) is satisfied;

c) determining by the computer whether $y < (T + ym - xm)/2$ (hereafter, called Condition 2) is satisfied;

d) determining by the computer whether $y - ym < x - xm$ (hereafter, called Condition 3) is satisfied;

e) determining by the computer whether close of bidding for Y is earlier than that of X (hereafter, called Condition 4);

f) determining by the computer whether $x + y > T$ (hereafter, called Condition 5) is satisfied;

g) determining by the computer whether $y > p1*x - p1*xm + ym$ (hereafter, called Condition 6) is satisfied;

h) determining by the computer that the bid item Y should not be purchased in one of cases where the Condition 1 is not satisfied, where the Condition 1 is satisfied, the Conditions 2 and 3 are not satisfied, and the Conditions 4 and 6 are satisfied, and where the Condition 1 is satisfied, the Conditions 2-5 are not satisfied, and the Condition 6 is satisfied; and

i) determining by the computer that the bid item Y should be purchased in one of cases where the Conditions 1 and 2 are satisfied, where the Condition 1 is satisfied, the Condition 2 is not satisfied, and the Condition 3 is satisfied, where the Condition 1 is satisfied, the Conditions 2 and 3 are not satisfied, the Condition 4 is satisfied, and the Condition 6 is not satisfied, and where the Condition 1 is satisfied and the Conditions 2-6 are not satisfied;

wherein the bidding strategy is established taking into consideration a possible rise of the present price of each of the bid items due to participation of a third party to the bidding in the future.

29. (Previously Presented) In a computer, a method for deciding a bid item for which a bid is made, comprising the steps of:

a) storing in a memory device a logical formula representing a logical AND of two bid items X and Y, a value table containing values xm and ym of respective ones of the bid items X and Y, present prices x and y of respective ones of the bid items X and Y, a combinatorial value xym obtainable when the items X and Y are both purchased, a total purchasing fund T, and a constant p2 determined by a bidding strategy;

b) determining by the computer whether $y < ym$ (hereafter, called Condition 1) is satisfied;

c) determining by the computer whether $y > xym - xm$ (hereafter, called Condition 2) is satisfied;

d) determining by the computer whether $x + y > xym$ (hereafter, called Condition 3) is satisfied;

e) determining by the computer whether $y > p2*xym - p2*x + ym$ (hereafter, called Condition 4) is satisfied;

f) determining by the computer that the bid item Y should be purchased in one of cases where the Condition 1 is satisfied and where the Conditions 1-4 are not satisfied; and

g) determining by the computer that the bid item Y should not be purchased when the Condition 1 is not satisfied and one of the Conditions 2-4 is satisfied;

wherein the bidding strategy is established taking into consideration a possible rise of the present price of each of the bid items due to participation of a third party to the bidding in the future.

30. (Previously Presented) The system according to claim 1, wherein the strategy computation section determines the at least one bid item in the candidate combination so as to maximize the possible profit within the total purchasing fund.

31. (Previously Presented) The system according to claim 1,

wherein a first bid item of said two or more of the plurality of bid items is being offered for sale by a first entity; and

wherein a second bid item of said two or more of the plurality of bid items is being offered for sale independently of the first bid item by a second entity that is different from the first entity.

32. (Previously Presented) The method according to claim 13,

wherein a first bid item of said two or more of the plurality of bid items is being offered for sale by a first entity; and

wherein a second bid item of said two or more of the plurality of bid items is being offered for sale independently of the first bid item by a second entity that is different from the first entity.